

August 8, 2001

Rich Ward  
EGS Easy Heat  
31977 US 20 East  
New Carlisle, Indiana 46552

Re: Registered Construction and Operation Status,  
**141-14173-00083**

Dear Mr. Ward:

The application from EGS Easy Heat, Inc., received on March 22, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following coated heating wire products manufacturing source, located at 31977 US 20 East, New Carlisle, Indiana 46552, Indiana, is classified as registered:

- (a) Two (2) electrically heated G-mat machines, identified as #0011 and #0012, capacity: 1,887 feet of PVC wire per hour.
- (b) Eight (8) plastic injection molders, identified as #0017, #0069, #0082, #0083, #0088, #0106, #0121, and #0122, capacity: 13.62 pounds of processed PVC compounds per hour.
- (c) Twenty (20) natural gas-fired heaters, capacity: 0.052 million British thermal units per hour, each.
- (d) One (1) natural gas-fired heater, capacity: 0.20 million British thermal units per hour.
- (e) Four (4) natural gas-fired heaters, capacity: 0.30 million British thermal units per hour, each.
- (f) One (1) natural gas-fired heater, capacity: 0.165 million British thermal units per hour.
- (g) Two (2) natural gas-fired heaters, capacity: 0.10 million British thermal units per hour, each.
- (h) Welding and brazing operations.
- (i) One (1) putty mixing operation, equipped with a wall of filters backed by an exhaust fan, capacity: 200 pounds of putty per batch, with a batch time of two (2) hours.
- (j) One (1) putty extruding operation, equipped with a wall of filters backed by an exhaust fan, capacity: 200 pounds of putty per batch, with a batch time of two (2) hours.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- 2. Any change or modification which may increase the potential to emit a combination of HAPs, VOC, NO<sub>x</sub>, SO<sub>2</sub>, PM or PM<sub>10</sub> to twenty five (25) tons per year, CO to one hundred (100) tons per year, or a single HAP to ten (10) tons per year from this source shall require approval from IDEM, OAQ prior to making the change.
- 3. Any change or modification that increases the actual emissions of PM to ten (10) tons per year or more shall make the facilities at this source subject to the requirements of 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations) and shall require prior IDEM, OAQ approval.
- 4. Pursuant to 326 IAC 6-3-2 (Process Operations), the following limitations are applicable:
  - (a) The particulate matter from the one (1) putty mixing operation shall not exceed 0.877 pounds per hour, when operating at a process weight rate of 200 pounds per hour. Although it takes two (2) hours to completely process each batch of 200 pounds, the process weight rate is still 200 pounds per hour because 200 pounds of putty are undergoing the mixing process during the hour. The filters shall be in operation at all times the putty mixing is in operation, in order to comply with this limit.
  - (b) The particulate matter from the one (1) putty extruding operation shall not exceed 0.877 pounds per hour, when operating at a process weight rate of 200 pounds per hour. Although it takes two (2) hours to completely process each batch of 200 pounds, the process weight rate is still 200 pounds per hour because 200 pounds of putty are undergoing the extruding process during the hour. The filters shall be in operation at all times the putty extruding is in operation, in order to comply with this limit.
  - (c) Pursuant to Exempt Construction and Operation Status 141-12467-00083, issued on September 14, 2000, the particulate matter (PM) from the welding, brazing, injection molding, and PVC molding shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- 6. The filters for PM control shall be in operation at all times when the one (1) putty mixing operation and one (1) putty extruding operation are in operation.
- 7. Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be

made of the overspray from the putty booths while one (1) or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

A registration R 141-3766-00083, issued on December 21, 1994, was superceded by the Exempt Construction and Operation Status 141-12467-00083, issued on September 14, 2000. This registration is required due to new construction at the source which results in emissions levels changing the status from exemption to registration. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

**Compliance Branch  
Office of Air Quality  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, IN 46206-6015**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by Paul Dubenetzky  
Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

CAO/MES

cc: File - St. Joseph County  
St. Joseph County Health Department  
Air Compliance - Rick Reynolds  
Northern Regional Office  
Permit Tracking - Janet Mobley  
Air Programs Section- Michele Boner

<b>Registration Annual Notification</b>
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This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

<b>Company Name:</b>	<b>EGS Easy Heat, Inc.</b>
<b>Address:</b>	<b>31977 US 20 East</b>
<b>City:</b>	<b>New Carlisle</b>
<b>Authorized individual:</b>	<b>Rich Ward</b>
<b>Phone #:</b>	<b>(219) 654-3144</b>
<b>Registration #:</b>	<b>141-14173</b>

I hereby certify that EGS Easy Heat, Inc. is still in operation and is in compliance with the requirements of Registration **141-14173-00083**.

<b>Name (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a Registration**

#### **Source Background and Description**

<b>Source Name:</b>	<b>EGS Easy Heat, Inc.</b>
<b>Source Location:</b>	<b>31977 US 20 East, New Carlisle, Indiana 46552</b>
<b>County:</b>	<b>St. Joseph</b>
<b>SIC Code:</b>	<b>3643</b>
<b>Operation Permit No.:</b>	<b>R 141-14173-00083</b>
<b>Permit Reviewer:</b>	<b>CarrieAnn Ortolani</b>

The Office of Air Quality (OAQ) has reviewed an application from EGS Easy Heat, Inc. relating to the construction and operation of a putty mixing operation and a putty extruding operation at an existing coated heating wire products manufacturing source.

The existing facilities were approved for construction and operation in Exempt Construction and Operation Status, 141-12467-00083, issued on September 14, 2000. This registration is required due to new construction at the source, which results in emissions levels changing the status from exempt to registration.

#### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) Two (2) electrically heated G-mat machines, identified as #0011 and #0012, capacity: 1,887 feet of PVC wire per hour.
- (b) Eight (8) plastic injection molders, identified as #0017, #0069, #0082, #0083, #0088, #0106, #0121, and #0122, capacity: 13.62 pounds of processed PVC compounds per hour.
- (c) Twenty (20) natural gas-fired heaters, capacity: 0.052 million British thermal units per hour, each.
- (d) One (1) natural gas-fired heater, capacity: 0.20 million British thermal units per hour.
- (e) Four (4) natural gas-fired heaters, capacity: 0.30 million British thermal units per hour, each.
- (f) One (1) natural gas-fired heater, capacity: 0.165 million British thermal units per hour.
- (g) Two (2) natural gas-fired heaters, capacity: 0.10 million British thermal units per hour, each.
- (h) Welding and brazing operations.

### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

### **New Emission Units and Pollution Control Equipment**

The source consists of the following new facilities/units:

- (i) One (1) putty mixing operation, equipped with a wall of filters backed by an exhaust fan, capacity: 200 pounds of putty per batch, with a batch time of two (2) hours.
- (j) One (1) putty extruding operation, equipped with a wall of filters backed by an exhaust fan, capacity: 200 pounds of putty per batch, with a batch time of two (2) hours.

### **Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

Exempt Construction and Operation Status, 141-12467-00083, issued on September 14, 2000.

A registration R 141-3766-00083, issued on December 21, 1994, was superceded by the Exempt Construction and Operation Status 141-12467-00083, issued on September 14, 2000.

All conditions from previous approvals were incorporated into this permit.

### **Enforcement Issue**

There are no enforcement actions pending.

### **Recommendation**

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 22, 2001, with additional information received on June 29, 2001.

### **Emission Calculations**

See page 1 of 1 of Appendix A of this document for detailed emissions calculations for the modification.

### **Potential To Emit of Entire Source**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	23.7
PM <sub>10</sub>	23.7
SO <sub>2</sub>	negligible
VOC	2.48
CO	0.400
NO <sub>x</sub>	7.67

HAPs	Potential To Emit (tons/year)
Hexane	0.02211
Formaldehyde	0.0009214
TOTAL	0.023

The potential to emit (as defined in 326 IAC 2-5.1-2) of PM and PM<sub>10</sub> are less than twenty-five (25) tons per year and greater than five (5) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.1-2.

#### Actual Emissions

No previous emission data has been received from the source.

#### Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Existing facilities (welding, brazing, injection molding, PVC molding and heaters)	1.24	1.24	negligible	2.48	0.4	7.67	0.023
New facilities (putty molding and putty extruding)	7.68	22.5	0.00	0.00	0.00	0.00	0.00
Total Emissions	less than 10	23.7	negligible	2.48	0.4	7.67	0.023

### County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM <sub>10</sub>	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. This portion of St. Joseph County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR Part 52.21.
- (b) St. Joseph County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	1.24
PM <sub>10</sub>	1.24
SO <sub>2</sub>	0.0
VOC	2.48
CO	0.4
NO <sub>x</sub>	7.67

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of two hundred-fifty (250) tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on the Technical Support Document of Exempt Construction and Operation Status, 141-12467-00083, issued on September 14, 2000.

(c) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

**Part 70 Permit Determination**

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this approval R 141-14173-00083, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than one hundred (100) tons per year,
- (b) a single hazardous air pollutant (HAP) is less than ten (10) tons per year, and
- (c) any combination of HAPS is less than twenty-five (25) tons per year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAQ inspector assigned to the source.

**Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) applicable to this source.

**State Rule Applicability - Entire Source**

326 IAC 2-6 (Emission Reporting)

This source is located in St. Joseph County, the potentials to emit VOC and NO<sub>x</sub> are less than ten (10), and the potentials to emit all other criteria pollutants are less than one hundred (100) tons per year, therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity)

This source is in St. Joseph County, but is not located east of Pine Road. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### State Rule Applicability - Individual Facilities

#### 326 IAC 6-1-1 (Nonattainment Area Particulate Limitations)

Although this source is located in St. Joseph County, which is listed in 326 IAC 6-1-7, the source is not specifically listed in 326 IAC 6-1-18, the potential to emit PM is less than one hundred (100) tons per year and the actual PM emissions are less than ten (10) tons per year due to operation of the control device. Therefore, the requirements of 326 IAC 6-1-2 are not applicable to the facilities at this source.

#### 326 IAC 6-3-2 (Process Operations)

- (a) The particulate matter from the one (1) putty mixing operation shall not exceed 0.877 pounds per hour, when operating at a process weight rate of 200 pounds per hour. Although it takes two (2) hours to completely process each batch of 200 pounds, the process weight rate is still 200 pounds per hour because 200 pounds of putty are undergoing the mixing process during the hour. Since the potential to emit PM from the total of the putty mixing and extruding operations, after control by the wall of filters, is 0.005 pounds per hour, the one (1) putty mixing operation will comply with this rule. The filters shall be in operation at all times the putty mixing is in operation, in order to comply with this limit.
- (b) The particulate matter from the one (1) putty extruding operation shall not exceed 0.877 pounds per hour, when operating at a process weight rate of 200 pounds per hour. Although it takes two (2) hours to completely process each batch of 200 pounds, the process weight rate is still 200 pounds per hour because 200 pounds of putty are undergoing the extruding process during the hour. Since the potential to emit PM from the total of the putty mixing and extruding operations, after control by the wall of filters, is 0.005 pounds per hour, the one (1) putty extruding operation will comply with this rule. The filters shall be in operation at all times the putty extruding is in operation, in order to comply with this limit.
- (c) Pursuant to Exempt Construction and Operation Status 141-12467-00083, issued on September 14, 2000, the particulate matter (PM) from the welding, brazing, injection molding, and PVC molding shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

#### 326 IAC 8-2-9 (Miscellaneous Metal Coating)

Since there are no VOC emissions from the putty molding or putty extruding operations the requirements of 326 IAC 8-2-9 are not applicable.

### Conclusion

The construction and operation of this putty mixing operation and a putty extruding operation at an existing coated heating wire products manufacturing source shall be subject to the conditions of the attached Registration 141-14173-00083.

**Appendix A: Emission Calculations  
Process Operations**

**Company Name:** EGS Easy Heat, Inc.  
**Address City IN Zip:** 31977 US 20 East, New Carlisle, Indiana 46552  
**Registration:** R 141-14173  
**Pit ID:** 141-00083  
**Reviewer:** CarrieAnn Ortolani  
**Date:** March 22, 2001

Emission Unit	Control Device	Flow Rate (acfm)	Outlet Grain Loading (gr/acf)	PM Controlled Emission Rate (lbs/hr)	PM Controlled Emission Rate (tons/yr)	Control Efficiency	PM Potential Emissions (lbs/hr)	PM Potential Emissions (tons/yr)
One (1) putty mixing operation and one (1) putty extruding operation	Wall of filters backed by an exhaust fan	2000	3.00E-04	0.005	0.023	99.9%	5.14	22.5
<b>Totals:</b>				0.005	0.023		5.14	22.5

**Methodology**

Controlled Emissions (lbs/hr) = gr/acf x acfm x 60 minutes/hr / 7000 gr/lb

Uncontrolled Emissions (lbs/hr) = Controlled Emissions (lbs/hr) / (1 - Control Efficiency)

Emissions (tons/yr) = Emissions (lbs/hr) \* 8760 hrs/yr / 2000 lbs/ton